

## SEQUENCE LISTING

&lt;110&gt; PRESIDENT AND FELLOWS OF HARVARD COLLEGE, et al.

<120> METHODS FOR MODULATING AN IMMUNE  
RESPONSE BY MODULATING KRC ACTIVITY

&lt;130&gt; HUI-045CP2PC

&lt;150&gt; 10/701,401

&lt;151&gt; 2003-11-03

&lt;160&gt; 8

&lt;170&gt; FastSEQ for Windows Version 4.0

&lt;210&gt; 1

&lt;211&gt; 8546

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (889) ... (8106)

&lt;400&gt; 1

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Met Asp Pro

1

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Glu Gln Ser Val Lys Gly Thr Lys Lys Ala Glu Gly Ser Pro Arg Lys
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Arg Leu Thr Lys Gly Glu Ala Ile Gln Thr Ser Val Ser Ser Ser Val
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cca tac cca ggc agc ggc aca gct ccg acc caa gag agc ccc gcc caa 1041
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Glu Gly Ser Gln Glu Lys Thr Gly Gln Gln Gln Lys Pro Pro Lys Arg	
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Pro Pro Ile Glu Ala Ser Val His Ile Ser His Val Pro Gln His Pro	
85 90 95	
ctg aca cca gca ttc atg tcg cct ggc aaa cct gag cat ctc ctg gag	1233
Leu Thr Pro Ala Phe Met Ser Pro Gly Lys Pro Glu His Leu Leu Glu	
100 105 110 115	
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Gly Ser Thr Trp Gln Leu Val Ser Pro Met Arg Leu Gly Pro Ser Gly	
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Ser Leu Leu Ala Pro Gly Leu His Pro Gln Ser Gln Leu Leu Pro Ser	
135 140 145	
cac gct tcc atc att ccc ccc gag gac ctt cct gga gtc ccc aaa gtc	1377
His Ala Ser Ile Ile Pro Pro Glu Asp Leu Pro Gly Val Pro Lys Val	
150 155 160	
ttc gtg cct cgt cct tcc cag gtc tcc ttg aag ccc aca gaa gag gca	1425
Phe Val Pro Arg Pro Ser Gln Val Ser Leu Lys Pro Thr Glu Glu Ala	
165 170 175	
cac aag aag gag agg aag ccc cag aag cca ggc aag tac atc tgc cag	1473
His Lys Lys Glu Arg Lys Pro Gln Lys Pro Gly Lys Tyr Ile Cys Gln	
180 185 190 195	
tac tgc agc cgg ccc tgt gcc aag ccc agc gtg ctc cag aag cac att	1521
Tyr Cys Ser Arg Pro Cys Ala Lys Pro Ser Val Leu Gln Lys His Ile	
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Arg Ser His Thr Gly Glu Arg Pro Tyr Pro Cys Gly Pro Cys Gly Phe	
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Ser Phe Lys Thr Lys Ser Asn Leu Tyr Lys His Arg Lys Ser His Ala	
230 235 240	
cac cgc atc aaa gca ggc ctg gcc tca ggc atg ggt ggc gag atg tac	1665
His Arg Ile Lys Ala Gly Leu Ala Ser Gly Met Gly Gly Glu Met Tyr	
245 250 255	
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Pro His Gly Leu Glu Met Glu Arg Ile Pro Gly Glu Glu Phe Glu Glu	
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Pro Thr Glu Gly Glu Ser Thr Asp Ser Glu Glu Glu Thr Ser Ala Thr	
280 285 290	

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Ser Gly His Pro Ala Glu Leu Ser Pro Arg Pro Lys Gln Pro Leu Leu	
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Ser Ser Gly Leu Tyr Ser Ser Gly Ser His Ser Ser Ser His Glu Arg	
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Cys Ser Leu Ser Gln Ser Ser Thr Ala Gln Ser Leu Glu Asp Pro Pro	
325 330 335	
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Pro Phe Val Glu Pro Ser Ser Glu His Pro Leu Ser His Lys Pro Glu	
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Lys Lys Val Ile Asp Glu Gln Ala Phe Leu Ser Pro Gly Ser Lys Gly	
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agt act gag tct ggg tat ttc tct cgc tcc gag agt gca gag cag cag	2097
Ser Thr Glu Ser Gly Tyr Phe Ser Arg Ser Glu Ser Ala Glu Gln Gln	
390 395 400	
gtc agc ccc cca aac acc aac gcc aag tcc tac gct gag atc atc ttt	2145
Val Ser Pro Pro Asn Thr Asn Ala Lys Ser Tyr Ala Glu Ile Ile Phe	
405 410 415	
ggc aag tgt ggg cga ata gga cag cgg acc gcc atg ctg aca gcc acc	2193
Gly Lys Cys Gly Arg Ile Gly Gln Arg Thr Ala Met Leu Thr Ala Thr	
420 425 430 435	
tcc acc cag ccc ctc ctg ccc ctc tcc acc gaa gac aag ccc agc ctg	2241
Ser Thr Gln Pro Leu Leu Pro Leu Ser Thr Glu Asp Lys Pro Ser Leu	
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Val Pro Leu Ser Val Pro Arg Thr Gln Val Ile Glu His Ile Thr Lys	
455 460 465	
ctc atc acc atc aac gag gcc gtg gtg gac acc agt gag atc gac agc	2337
Leu Ile Thr Ile Asn Glu Ala Val Val Asp Thr Ser Glu Ile Asp Ser	
470 475 480	
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Val Lys Pro Arg Arg Ser Ser Leu Ser Arg Arg Ser Ser Met Glu Ser	
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Pro Lys Ser Ser Leu Tyr Arg Glu Pro Leu Ser Ser His Ser Glu Lys	
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acc aag cct gaa caa tca ctg ctg agc ctc cag cac ccg ccc agt acc	2481
Thr Lys Pro Glu Gln Ser Leu Leu Ser Leu Gln His Pro Pro Ser Thr	
520 525 530	

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Ala Pro Pro Val Pro Leu Leu Arg Ser His Ser Met Pro Ser Ala Ala	
535 540 545	
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Cys Thr Ile Ser Thr Pro His His Pro Phe Arg Gly Ser Tyr Ser Phe	
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Asp Asp His Ile Thr Asp Ser Glu Ala Leu Ser Arg Ser Ser His Val	
565 570 575	
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Phe Thr Ser His Pro Arg Met Leu Lys Pro Gln Pro Ala Ile Glu Leu	
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Pro Leu Gly Gly Glu Tyr Ser Ser Glu Glu Pro Gly Pro Ser Ser Lys	
600 605 610	
gac aca gcc tcc aag ccc tcg gac gaa gtg gaa ccc aag gaa agc gag	2769
Asp Thr Ala Ser Lys Pro Ser Asp Glu Val Glu Pro Lys Glu Ser Glu	
615 620 625	
ctt acc aaa aag acc aag aag ggt ttg aaa aca aaa ggg gtg atc tac	2817
Leu Thr Lys Lys Thr Lys Lys Gly Leu Lys Thr Lys Gly Val Ile Tyr	
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Glu Cys Asn Ile Cys Gly Ala Arg Tyr Lys Lys Arg Asp Asn Tyr Glu	
645 650 655	
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Ala His Lys Lys Tyr Tyr Cys Ser Glu Leu Gln Ile Ala Lys Pro Ile	
660 665 670 675	
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Ser Ala Gly Thr His Thr Ser Pro Glu Ala Glu Lys Ser Gln Ile Glu	
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His Glu Pro Trp Ser Gln Met Met His Tyr Lys Leu Gly Thr Thr Leu	
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Glu Leu Thr Pro Leu Arg Lys Arg Arg Lys Glu Lys Ser Leu Gly Asp	
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Pro Gly Pro Ser Asp Ala Ala Arg Asn Leu Pro Leu Glu Ser Thr Lys	
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775 780 785	
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Lys Glu Arg Arg Thr Thr Ser Lys Glu Ile Ser Val Ile Gln His Thr	
790 795 800	
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Ser Ser Phe Glu Lys Ser Asp Ser Leu Glu Gln Pro Ser Gly Leu Glu	
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Gly Glu Asp Lys Pro Leu Ala Gln Phe Pro Ser Pro Pro Pro Ala Pro	
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His Gly Arg Ser Ala His Ser Leu Gln Pro Lys Leu Val Arg Gln Pro	
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Asn Ile Gln Val Pro Glu Ile Leu Val Thr Glu Glu Pro Asp Arg Pro	
855 860 865	
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Asp Thr Glu Pro Glu Pro Pro Pro Lys Glu Pro Glu Lys Thr Glu Glu	
870 875 880	
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Phe Gln Trp Pro Gln Arg Ser Gln Thr Leu Ala Gln Leu Pro Ala Glu	
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Lys Ala Pro Pro Lys Lys Lys Arg Leu Arg Leu Ala Glu Met Ala Gln	
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Pro Ser Gln Glu Ser Asn Val Ser Leu Ser Gly Ser Ser Arg Ser Ala	
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Ser Phe Glu Arg Asp Asp His Gly Lys Ala Glu Ala Pro Asp Pro Ser	
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Ser Asp Met Arg Pro Lys Pro Leu Gly Thr His Met Leu Thr Val Pro	
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Ser His His Pro His Ala Arg Glu Met Arg Arg Ser Ala Ser Glu Gln	
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Ser Pro Asn Val Ser His Ser Ala His Met Thr Glu Thr Arg Ser Lys	
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Ser Phe Asp Tyr Gly Ser Leu Ser Leu Thr Gly Pro Ser Ala Pro Ala	
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Glu Val Ala Pro Lys Gly Arg Gln Glu Ser Glu Glu Pro Gln Pro Ser	
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Ser Ser Lys Pro Ser Ala Lys Ser Ser Leu Ser Gln Ile Ser Ser Ala	
1080 1085 1090	
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Ala Thr Ser His Gly Gly Pro Pro Gly Gly Lys Gly Pro Gly Gln Asp	
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Arg Pro Ala Leu Gly Pro Thr Val Pro Tyr Thr Glu Ala Leu Gln Val	
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Phe His His Pro Val Ala Gln Thr Pro Leu His Glu Lys Pro Tyr Leu	
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Leu Ser Ser Pro Tyr Ser Met Pro Pro Leu Pro Pro Ser Leu Phe Gln	
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His Leu Pro Gln Leu Met Pro His Pro Ala Asn Ile Pro Phe Arg Gln	
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Asp Ile Arg Leu Pro Pro Val Ala Pro Pro Ala Ser Ser Ser Ala Pro	
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Asp Thr Lys Glu Ile Pro Pro Leu Pro His Pro Ala Leu Ser His Gly	
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Lys Pro His Arg Arg Gly Leu Thr Pro Leu Ser Val Lys Lys Glu Asp	
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Ser Lys Glu Gln Pro Asp Leu Pro Ser Leu Ala Pro Pro Ser Ser Leu	
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Arg Ser Lys Gln Lys Val Ser Lys Glu Thr Tyr Thr Met Ala Thr Ala	
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Pro His Pro Glu Ala Gly Arg Leu Val Pro Ser Ser Ser Arg Lys Pro	
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Arg Met Thr Glu Val His Leu Pro Ser Leu Val Ser Pro Glu Gly Gln	
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Glu Glu Asp Ala Pro Ala Ser Gln Arg Gly Glu Pro Ala Arg Ile Lys	
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Pro Ala Gln Glu Leu Leu Ala Pro Gln Pro Phe Pro Gly Pro Ser Ser
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Val Leu Arg Glu Gly Ser Gln Glu Lys Thr Gly Gln Gln Gln Lys Pro
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Pro Lys Arg Pro Pro Ile Glu Ala Ser Val His Ile Ser His Val Pro
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Gln His Pro Leu Thr Pro Ala Phe Met Ser Pro Gly Lys Pro Glu His
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Leu Leu Glu Gly Ser Thr Trp Gln Leu Val Ser Pro Met Arg Leu Gly
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Lys His Ile Arg Ser His Thr Gly Glu Arg Pro Tyr Pro Cys Gly Pro
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Phe Glu Glu Pro Thr Glu Gly Glu Ser Thr Asp Ser Glu Glu Glu Thr
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Lys Pro Glu Asp Thr His Thr Ile Lys Gln Lys Leu Ala Leu Arg Leu
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 Pro Ala Pro His Gly Arg Ser Ala His Ser Leu Gln Pro Lys Leu Val  
 835 840 845  
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Ile Pro Gly Glu Glu Phe Glu Glu Pro Thr Glu Gly Glu Ser Thr Asp
 65          70          75          80
Ser Glu Glu Glu Thr Ser Ala Thr Ser Gly His Pro Ala Glu Leu Ser
 85          90          95
Pro Arg Pro Lys Gln Pro Leu Leu Ser Ser Gly Leu Tyr Ser Ser Gly
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Ser His Ser Ser Ser His Glu Arg Cys Ser Leu Ser Gln Ser Ser Thr
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Ala Gln Ser Leu Glu Asp Pro Pro Pro Phe Val Glu Pro Ser Ser Glu
 130          135          140
His Pro Leu Ser His Lys Pro Glu Asp Thr His Thr Ile Lys Gln Lys
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Leu Ala Leu Arg Leu Ser Glu Arg Lys Lys Val Ile Asp Glu Gln Ala
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Phe Leu Ser Pro Gly Ser Lys Gly Ser Thr Glu Ser Gly Tyr Phe Ser
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Lys Ser Tyr Ala Glu Ile Ile Phe Gly Lys Cys Gly Arg Ile Gly Gln
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Arg Thr Ala Met Leu Thr Ala Thr Ser Thr Gln Pro Leu Leu Pro Leu
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Ser Thr Glu Asp Lys Pro Ser Leu Val Pro Leu Ser Val Pro Arg Thr
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Gln Val Ile Glu His Ile Thr Lys Leu Ile Thr Ile Asn Glu Ala Val
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Ser His Ser Met Pro Ser Ala Ala Cys Thr Ile Ser Thr Pro His His
 340          345          350
Pro Phe Arg Gly Ser Tyr Ser Phe Asp Asp His Ile Thr Asp Ser Glu
 355          360          365
Ala Leu Ser Arg Ser Ser His Val Phe Thr Ser His Pro Arg Met Leu
 370          375          380
Lys Pro Gln Pro Ala Ile Glu Leu Pro Leu Gly Glu Tyr Ser Ser
 385          390          395          400
Glu Glu Pro Gly Pro Ser Ser Lys Asp Thr Ala Ser Lys Pro Ser Asp
 405          410          415
Glu Val Glu Pro Lys Glu Ser Glu Leu Thr Lys Lys Thr Lys Lys Gly
 420          425          430
Leu Lys Thr Lys Gly Val Ile Tyr Glu Cys Asn Ile Cys Gly Ala Arg
 435          440          445
Tyr Lys Lys Arg Asp Asn Tyr Glu Ala His Lys Lys Tyr Tyr Cys Ser
 450          455          460
Glu Leu Gln Ile Ala Lys Pro Ile Ser Ala Gly Thr His Thr Ser Pro
 465          470          475          480

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Glu Ala Glu Lys Ser Gln Ile Glu His Glu Pro Trp Ser Gln Met Met  
 485 490 495  
 His Tyr Lys Leu Gly Thr Thr Leu Glu Leu Thr Pro Leu Arg Lys Arg  
 500 505 510  
 Arg Lys Glu Lys Ser Leu Gly Asp Glu Glu Glu Pro Pro Ala Phe Glu  
 515 520 525  
 Ser Thr Lys Ser Gln Phe Gly Ser Pro Gly Pro Ser Asp Ala Ala Arg  
 530 535 540  
 Asn Leu Pro Leu Glu Ser Thr Lys Ser Pro Ala Glu Pro Ser Lys Ser  
 545 550 555 560  
 Val Pro Ser Leu Glu Gly Pro Thr Gly Phe Gln Pro Arg Thr Pro Lys  
 565 570 575  
 Pro Gly Ser Gly Ser Glu Ser Gly Lys Glu Arg Arg Thr Thr Ser Lys  
 580 585 590  
 Glu Ile Ser Val Ile Gln His Thr Ser Ser Phe Glu Lys Ser Asp Ser  
 595 600 605  
 Leu Glu Gln Pro Ser Gly Leu Glu Gly Glu Asp Lys Pro Leu Ala Gln  
 610 615 620  
 Phe Pro Ser Pro Pro Pro Ala Pro His Gly Arg Ser Ala His Ser Leu  
 625 630 635 640  
 Gln Pro Lys Leu Val Arg Gln Pro Asn Ile Gln Val Pro Glu Ile Leu  
 645 650 655  
 Val Thr Glu Glu Pro Asp Arg Pro Asp Thr Glu Pro Glu Pro Pro Pro  
 660 665 670  
 Lys Glu Pro Glu Lys Thr Glu Glu Phe Gln Trp Pro Gln Arg Ser Gln  
 675 680 685  
 Thr Leu Ala Gln Leu Pro Ala Glu Lys Ala Pro Pro Lys Lys Lys Arg  
 690 695 700  
 Leu Arg Leu Ala Glu Met Ala Gln Ser Ser Gly Glu Ser Ser Phe Glu  
 705 710 715 720  
 Ser Ser Val Pro Leu Ser Arg Ser Pro Ser Gln Glu Ser Asn Val Ser  
 725 730 735  
 Leu Ser Gly Ser Ser Arg Ser Ala Ser Phe Glu Arg Asp Asp His Gly  
 740 745 750  
 Lys Ala Glu Ala Pro Asp Pro Ser Ser Asp Met Arg Pro Lys Pro Leu  
 755 760 765  
 Gly Thr His Met Leu Thr Val Pro Ser His His Pro His Ala Arg Glu  
 770 775 780  
 Met Arg Arg Ser Ala Ser Glu Gln Ser Pro Asn Val Ser His Ser Ala  
 785 790 795 800  
 His Met Thr Glu Thr Arg Ser Lys Ser Phe Asp Tyr Gly Ser Leu Ser  
 805 810 815  
 Leu Thr Gly Pro Ser Ala Pro Ala Pro Val Ala Pro Pro Ala Gly Glu  
 820 825 830  
 Ala Pro Pro Glu Arg Arg Lys Cys Phe Leu Val Arg Ser Pro Ser Leu  
 835 840 845  
 Ser Arg Pro Pro  
 850

&lt;210&gt; 8

&lt;211&gt; 786

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 8

Glu Met Leu Ser Ser Leu Ser Ser Asp Pro Ser Asp Thr Lys Glu Ile  
 1 5 10 15  
 Pro Pro Leu Pro His Pro Ala Leu Ser His Gly Gln Ala Pro Gly Ser  
 20 25 30

Glu	Ala	Leu	Lys	Glu	Tyr	Pro	Gln	Pro	Ser	Gly	Lys	Pro	His	Arg	Arg		
	35						40					45					
Gly	Leu	Thr	Pro	Leu	Ser	Val	Lys	Lys	Glu	Asp	Ser	Lys	Glu	Gln	Pro		
	50					55					60						
Asp	Leu	Pro	Ser	Leu	Ala	Pro	Pro	Ser	Ser	Leu	Pro	Leu	Ser	Glu	Thr		
65					70					75					80		
Ser	Ser	Arg	Pro	Ala	Lys	Ser	Gln	Glu	Gly	Thr	Asp	Ser	Lys	Lys	Val		
				85					90					95			
Leu	Gln	Phe	Pro	Ser	Leu	His	Thr	Thr	Thr	Asn	Val	Ser	Trp	Cys	Tyr		
		100					105						110				
Leu	Asn	Tyr	Ile	Lys	Pro	Asn	His	Ile	Gln	His	Ala	Asp	Arg	Arg	Ser		
	115					120						125					
Ser	Val	Tyr	Ala	Gly	Trp	Cys	Ile	Ser	Leu	Tyr	Asn	Pro	Asn	Leu	Pro		
	130				135						140						
Gly	Val	Ser	Thr	Lys	Ala	Ala	Leu	Ser	Leu	Leu	Arg	Ser	Lys	Gln	Lys		
145				150						155					160		
Val	Ser	Lys	Glu	Thr	Tyr	Thr	Met	Ala	Thr	Ala	Pro	His	Pro	Glu	Ala		
			165						170					175			
Gly	Arg	Leu	Val	Pro	Ser	Ser	Ser	Arg	Lys	Pro	Arg	Met	Thr	Glu	Val		
	180							185					190				
His	Leu	Pro	Ser	Leu	Val	Ser	Pro	Glu	Gly	Gln	Lys	Asp	Leu	Ala	Arg		
	195					200						205					
Val	Glu	Lys	Glu	Glu	Glu	Arg	Arg	Gly	Glu	Pro	Glu	Glu	Asp	Ala	Pro		
	210					215					220						
Ala	Ser	Gln	Arg	Gly	Glu	Pro	Ala	Arg	Ile	Lys	Ile	Phe	Glu	Gly	Gly		
225				230					235					240			
Tyr	Lys	Ser	Asn	Glu	Glu	Tyr	Val	Tyr	Val	Arg	Gly	Arg	Gly	Arg	Gly		
			245					250					255				
Lys	Tyr	Val	Cys	Glu	Glu	Cys	Gly	Ile	Arg	Cys	Lys	Lys	Pro	Ser	Met		
	260						265						270				
Leu	Lys	Lys	His	Ile	Arg	Thr	His	Thr	Asp	Val	Arg	Pro	Tyr	Val	Cys		
	275					280						285					
Lys	His	Cys	His	Phe	Ala	Phe	Lys	Thr	Lys	Gly	Asn	Leu	Thr	Lys	His		
	290					295					300						
Met	Lys	Ser	Lys	Ala	His	Ser	Lys	Lys	Cys	Gln	Glu	Thr	Gly	Val	Leu		
305				310						315				320			
Glu	Glu	Leu	Glu	Ala	Glu	Glu	Gly	Thr	Ser	Asp	Asp	Leu	Phe	Gln	Asp		
			325					330					335				
Ser	Glu	Gly	Arg	Glu	Gly	Ser	Glu	Ala	Val	Glu	Glu	His	Gln	Phe	Ser		
	340						345						350				
Asp	Leu	Glu	Asp	Ser	Asp	Ser	Asp	Ser	Asp	Leu	Asp	Glu	Asp	Glu	Asp		
	355					360						365					
Glu	Asp	Glu	Glu	Glu	Ser	Gln	Asp	Glu	Leu	Ser	Arg	Pro	Ser	Ser	Glu		
	370				375						380						
Ala	Pro	Pro	Pro	Gly	Pro	Pro	His	Ala	Leu	Arg	Ala	Asp	Ser	Ser	Pro		
385				390						395					400		
Ile	Leu	Gly	Pro	Gln	Pro	Pro	Asp	Ala	Pro	Ala	Ser	Gly	Thr	Glu	Ala		
			405					410					415				
Thr	Arg	Gly	Ser	Ser	Val	Ser	Glu	Ala	Glu	Arg	Leu	Thr	Ala	Ser	Ser		
	420							425					430				
Cys	Ser	Met	Ser	Ser	Gln	Ser	Met	Pro	Gly	Leu	Pro	Trp	Leu	Gly	Pro		
	435					440						445					
Ala	Pro	Leu	Gly	Ser	Val	Glu	Lys	Asp	Thr	Gly	Ser	Ala	Leu	Ser	Tyr		
	450				455						460						
Lys	Pro	Val	Ser	Pro	Arg	Arg	Pro	Trp	Ser	Pro	Ser	Lys	Glu	Ala	Gly		
465				470						475					480		
Ser	Arg	Pro	Pro	Leu	Ala	Arg	Lys	His	Ser	Leu	Thr	Lys	Asn	Asp	Ser		
			485					490					495				
Ser	Pro	Gln	Arg	Cys	Ser	Pro	Ala	Arg	Glu	Pro	Gln	Ala	Ser	Ala	Pro		
		500						505					510				

Ser Pro Pro Gly Leu His Val Asp Pro Gly Arg Gly Met Gly Pro Leu  
 515 520 525  
 Pro Cys Gly Ser Pro Arg Leu Gln Leu Ser Pro Leu Thr Leu Cys Pro  
 530 535 540  
 Leu Gly Arg Glu Leu Ala Pro Arg Ala His Val Leu Ser Lys Leu Glu  
 545 550 555 560  
 Gly Thr Thr Asp Pro Gly Leu Pro Arg Tyr Ser Pro Thr Arg Arg Trp  
 565 570 575  
 Ser Pro Gly Gln Ala Glu Ser Pro Pro Arg Ser Ala Pro Pro Gly Lys  
 580 585 590  
 Trp Ala Leu Ala Gly Pro Gly Ser Pro Ser Ala Gly Glu His Gly Pro  
 595 600 605  
 Gly Leu Gly Leu Ala Pro Arg Val Leu Phe Pro Pro Ala Pro Leu Pro  
 610 615 620  
 His Lys Leu Leu Ser Arg Ser Pro Glu Thr Cys Ala Ser Pro Trp Gln  
 625 630 635 640  
 Lys Ala Glu Ser Arg Ser Pro Ser Cys Ser Pro Gly Pro Ala His Pro  
 645 650 655  
 Leu Ser Ser Arg Pro Phe Ser Ala Leu His Asp Phe His Gly His Ile  
 660 665 670  
 Leu Ala Arg Thr Glu Glu Asn Ile Phe Ser His Leu Pro Leu His Ser  
 675 680 685  
 Gln His Leu Thr Arg Ala Pro Cys Pro Leu Ile Pro Ile Gly Gly Ile  
 690 695 700  
 Gln Met Val Gln Ala Arg Pro Gly Ala His Pro Thr Leu Leu Pro Gly  
 705 710 715 720  
 Pro Thr Ala Ala Trp Val Ser Gly Phe Ser Gly Gly Gly Ser Asp Leu  
 725 730 735  
 Thr Gly Ala Arg Glu Ala Gln Glu Arg Gly Arg Trp Ser Pro Thr Glu  
 740 745 750  
 Ser Ser Ser Ala Ser Val Ser Pro Val Ala Lys Val Ser Lys Phe Thr  
 755 760 765  
 Leu Ser Ser Glu Leu Glu Gly Arg Asp Tyr Pro Lys Glu Arg Glu Arg  
 770 775 780  
 Thr Gly  
 785